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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/066,695 | 02/06/2002 | Alexandre Da Rocha | Q68318 | 5644 |

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EXAMINER

MEEK, JACOB M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2637

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,695

Applicant(s)

ROCHA ET AL.

Examiner

Jacob Meek

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindoff et al (US-6,370,205) in view of Namgoong (Performance of a direct-conversion receiver with AC coupling; Circuits and Systems II: Analog and Digital Signal Processing, IEEE Transactions on Volume 47, Issue 12, Dec. 2000 Page(s):1556 - 1559).

With regard to claim 1, Lindoff teaches a receiver of a mobile radio terminal in a telecommunications system, receiver including a RF signal generator (see figure 1, 175) cooperating with a frequency transposer to transpose the frequency of a received signal to a lower frequency (see figure 1, 130 & 160), a filter for filtering a unwanted components induced by operation of RF generator and frequency transposer (see figure 1, 140 & 170 and column 3, lines 26 - 30), and a digitizer (see Figure 1, 150 & 180 and column 3, lines 30 –

Art Unit: 2637

31), in which device filter component before signal enters digitizer (see column 3, lines 26 - 30), a residual dynamic component being eliminated by a digital filter placed after digitizer and a corrector (see figure 1, 190, figure 2, 230, 250, 260 and column 3, lines 37 - 43 where this is interpreted as equivalent). Lindoff teaches his 1st filter "can be" a low pass filter.

Namgoong teaches that a high-pass filter can be used based on type of modulation used (see section I, 4th paragraph). It would have been obvious to one of ordinary skill in the art at the time of invention that filter selection would be based on system characteristics and that a high pass filter is a low cost and simple solution (see section 1, 4th paragraph).

With regard to claim 2, Lindoff teaches a digital filter calculating residual dynamic component (see figure 2, 260 and column 4, lines 1 - 19) and supplies corrector with a signal representative of residual dynamic component (see figure 2, 230 and column 4, lines 42 - 48 where this is interpreted as equivalent).

With regard to claim 3, Lindoff teaches a digital filter being a high pass filter (see column 5, lines 50 - 54 where this is interpreted as equivalent functionality).

With regard to claim 4, Lindoff teaches corrector includes a subtractor for extracting residual dynamic component from signal coming from the digitizer (see figure 2, 230 and column 4, lines 42 - 48).

With regard to claim 5, Lindoff teaches subtractor calculates the difference between signal coming from digitizer and signal representative of residual dynamic component coming from digital filter (see column 4 lines 42 - 54).

2. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popovic (US-6,292,519).

With regard to claim 6, Popovic teaches a method of estimating a residual dynamic component of interference to a received signal in a mobile radio terminal (see figure 5) where

the signal is transmitted in the form of frames divided into time slots method including the steps of: calculating average value of signal over a time slot (see figure 9, step 54 where this is interpreted as equivalent), determining the spacing expressed as a number of time slots between 2 consecutive calculations of average value of signal over a time slot (see column 2, lines 22 – 35); determining number of terms representing average value of signal over a time slot to be considered (see column 2, line 47 – column 3, line 4); and calculating residual dynamic component of interference to received signal (see figure 9, 58). While Popvic's invention differs slightly in nomenclature from applicant's claimed invention, the differences would have been obvious to one of ordinary skill in the art at the time of invention.

With regard to claim 7, Popovic teaches a method wherein average value is calculated over a time slot portion (see column 9, lines 36 – 42 where this is interpreted as equivalent).

Allowable Subject Matter

3. Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Cited Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Imura (US-6,507,627) and Moore (US-6,035,186) disclose receivers with many of the features claimed by applicant. Hamabe (US-6,351,651) and Sato (US-6,819,927) disclose methods for the measurement of power. Nakahara (US-6,834,197), Suominen (US-6,427,068) and Namgoong (US-6356,748) disclose systems and methods of spectrum control for receivers.

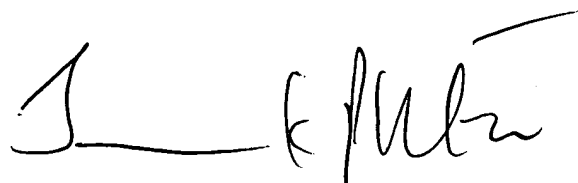
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM



JAY K. PATEL
SUPERVISORY PATENT EXAMINER